PUBLIC ACCEPTABILITY OF REGIONAL ROAD-USE PRICING:
CAN IT BE DESIGNED TO GARNER PUBLIC SUPPORT?

Grant Proposal for US DOT- FHWA Value Pricing Pilot Program

Submitted by the Virginia Department of Transportation
On behalf of the National Capital Region Transportation Planning Board (TPB)
Working in Partnership with the Brookings Institution

November 3, 2009

I. OVERVIEW

While distance-based road pricing has become technologically feasible, questions of public acceptability remain largely unanswered. Is it possible to make road-use pricing politically viable, and if so, how? Can decision makers effectively address concerns about privacy and equity? Under what circumstances do voters believe that road-use pricing is "worth it"? What would it take to convince political leaders that it's worth supporting such a policy?

The National Capital Region Transportation Planning Board in partnership with the Brookings Institution is submitting this application for a study that would investigate these concerns in a comprehensive and objective manner. Using the metropolitan Washington region as a case study, the project will employ focus groups and public opinion surveys to test a variety of pricing options and assess opportunities and obstacles to implementation.

II. BACKGROUND

About the Transportation Planning Board

The National Capital Region Transportation Planning Board (TPB) is the Metropolitan Planning Organization (MPO) for the Washington metropolitan region. As an MPO, the TPB is responsible for coordinating transportation planning at the regional level and developing the long-range (20-25 year) financially constrained transportation plan for the region.

The TPB brings together key decision maker to coordinate planning and funding for the region's transportation system. Members of the TPB include representatives of local governments, the departments of transportation for the District of Columbia, Maryland and Virginia, the Washington Metropolitan Area Transit Authority (WMATA), the Maryland and Virginia General Assemblies, and non-voting members from the Metropolitan Washington Airports Authority and federal agencies.

The TPB was created in 1965 by local and state governments in the Washington region. The TPB has been associated with the Metropolitan Washington Council of Governments (MWCOG) since 1966. Although the TPB is an independent body, its staff is provided by COG's Department of Transportation Planning.

About Greater Washington Research at Brookings

Greater Washington Research at Brookings, founded in 2000, is housed within the Brookings Metropolitan Policy Program. Its mission is to improve public policy in the region by identifying policy issues, presenting data and analysis of policy options, and convening leaders for focused dialogue. The program serves as both a research resource and catalyst for action. Greater Washington Research focuses on a variety of economic, demographic and social policy issues affecting the region and the city of Washington, DC.

Recent and ongoing work includes analyses of how the region is faring in the context of a national recession; assessments of demographic trends and changes in the region; and options to improve post-secondary educational and job training opportunities for Washington, DC residents. Upcoming work includes identifying financing strategies to support the DC Water and Sewer Authority in making legally required infrastructure improvements and assessing the likely effects of various policy options, such as mixed-income housing and transit-oriented development, in reducing regional disparities in economic development, earnings and poverty.

Because of its small size, Greater Washington Research at Brookings conducts much of its work in partnership with other organizations such as the TPB. The program also collaborates with colleagues in the nationally-focused Metropolitan Policy Program on a variety of issues. Alice M. Rivlin is director of Greater Washington Research at Brookings; Dr. Rivlin is an economist and also has an appointment as Senior Fellow in the Brookings Economic Studies program.

III. PROPOSAL

Problem Statement: ***Increasing Congestion, Tightening Revenues, Political Sensitivities***

The Washington region's pattern of rapid growth is forecast to continue in the coming decades. The Metropolitan Washington Council of Governments projects that the metropolitan area will add 1.6 million new residents and 1.2 million new jobs by 2030. These new people and new jobs will increase the stress on an already burdened transportation system. At the same time, transportation funding is tight and future funding forecasts are bleak. Revenue sources have simply not kept up with needs, in large part because fuel taxes have not been increased with inflation, nor have they taken into account improvements in vehicle fuel efficiency. Costs have also increased faster than inflation, including operation and maintenance expenses and construction costs.

TPB travel demand forecasts reveal a disturbing mismatch between demand and capacity. Between 2008 and 2030, vehicle miles of travel (VMT) are anticipated to increase 23 percent, while freeway and arterial lane miles will only increase 13 percent increase. The number of lane miles of peak-hour congestion will grow by 41 percent in the same period. The growth in transit capacity will also not keep up with demand. Without additional funding, ridership demand on the Metrorail system is expected to exceed capacity "to and through" the regional core by 2030.

As congestion grows and funding shrinks, decision makers have increasingly turned to transportation pricing mechanisms. Today, three out of the five most expensive projects planned in the National Capital Region for the next six years are toll projects—Virginia's two HOT lanes projects (on the Beltway and I-95/39) and Maryland's Intercounty Connector. Toll revenues are also a key funding component for the Dulles rail project. The TPB's 2006 long-range financial analysis found that tolls and private sources can be expected to provide seven percent of anticipated revenues between now and 2030. A similar analysis in 2003 found that toll and private money accounted for just one percent of anticipated revenues.

Although decision makers in the Washington region and across the nation have increasingly responded to the transportation funding shortfall with toll-lane projects, anticipated revenues still fall far short of needs. Therefore, the national debate has focused in recent years on the inadequacies of the gas tax as a transportation funding mechanism. Many leading experts have called for the gas tax to be replaced by a system of user fees based on vehicle miles of travel (VMT). If fees could further be based on location and time of day of vehicle travel, such a system could increase revenues and improve system performance by reducing congestion and emissions, including greenhouse gases.

In February 2009, the National Surface Transportation Infrastructure Financing Commission issued its final report to Congress. The report recommended moving to a VMT charge within a decade because the fuel tax is "likely to erode more quickly than previously thought." Distance-based road pricing has been the subject of numerous public discussions and reports, including a study released in June 2009 by the Rand Corporation on behalf of the American Association of State Highway and Transportation Officials (AASHTO), which evaluated the effectiveness and practicality of nine different VMT fee mechanisms.

Also in June, the Brookings Institution issued a report titled *"Road-use Pricing: How Would You Like to Spend Less Time in Traffic?"* The Brookings proposal called for an area-wide demonstration project that would replace state gas taxes in the D.C. region with a system of GPS-based road pricing. (See Section IV for more information on the Brookings proposal.)

National transportation policy makers expressed interest earlier this year in further investigation of a VMT tax, but political leaders on Capitol Hill and within the Administration have stopped short of an outright endorsement of such a major policy shift. Indeed, public acceptability appears to have emerged as the biggest obstacle to implementation. However,

research on public attitudes is notably lacking. While proponents have articulated a persuasive case in support of pricing policies, our understanding of the public acceptability of such policies often seems to be based upon limited information and poorly grounded assumptions.

Project Description: *Testing Public Acceptability of Pricing Scenarios*

The National Capital Region Transportation Planning Board at the Metropolitan Washington Council of Governments (MWCOG), in partnership with the Brookings Institution, is submitting this application for a project that will seek to answer key questions related to the public acceptability of VMT fees or other forms of road-use pricing. In an iterative process, the project will gather and analyze data regarding the public acceptability of pricing programs based on social, economic, and equity effects. An initial technical assessment will be made of several viable options for regional road-use pricing and the various ways in which they could be implemented. A telephone survey will be used to evaluate public attitudes toward a menu of pricing options. Focus groups will explore how strategies, which will have been explored in the survey and elaborated with input from the expert panel, address public concerns and political challenges. Briefings will be presented to the TPB at key stages throughout the process. Upon completion of the study, findings will be summarized and presented to the TPB.

The project will proceed according to the following phases:

<u>Task 1: Develop a menu of implementation options</u>

The TPB and Brookings and will convene an expert panel of 10-14 regional experts on transportation and road-use pricing. Over the course of three months and through a series of intensive meetings, this expert panel will develop a menu of implementation options for comprehensive regional road-use pricing. These options will fall under four main categories: geography, technology, and pricing strategy and revenue uses. For example, the geographic area priced could be determined by relative proximity to transit and/or level of congestion; the technology used to assign prices to motorists could be GPS-, cell phone tower-, or camera-based; fees might vary by time of day or ability to pay; and revenues might be used to fund transit and/or roads, or to offset negative effects on low-income motorists.

Also during this initial period, the TPB will procure consultant assistance from a public opinion research firm to work with the expert panel to develop a public opinion survey that will be based upon the menu of implementation options. This firm will take the lead in designing, conducting and analyzing the public opinion survey (Task 2) and focus groups (Task 5).

Task 2: Conduct public opinion survey

The opinion research consultant firm will conduct a telephone survey that presents respondents with a basic set of menu options for road-use pricing and then asks them to rate each of the pricing menu items based upon the respondents' attitudes regarding a number of factors including anticipated benefits and disbenefits, concerns about privacy and equity, use of new revenues, and a variety of other issues. . The TPB will identify a consultant with an extensive level of expertise in both objective, non-partisan public opinion research and public policy. Preference will be given to firms with experience in transportation planning or policy. COG's recent survey for its Greater Washington 2050 initiative may provide a model to consider in the development of this project's survey.

Task 3: Identify scenarios

The TPB, Brookings and the expert panel will develop a series of alternate road-use pricing scenarios, with an emphasis on different combinations of those menu items most likely to garner public support based on an analysis of survey responses. These scenarios will then be used to provide focus group participants with clear alternative choices among various features, such as varying levels of geographic coverage, different technologies for pricing, and various innovative pricing strategies to affect transportation behavior, travel patterns and mode choice.

Task 4: Conduct focus groups

The TPB will contract with a private consultant to convene focus groups to discuss, evaluate, and refine the pricing scenarios. Focus groups will include randomly selected groups of individuals and may also comprise stakeholder groups, including representatives of business, environmental and civic groups.

Task 5: Conduct further analysis

The scenarios produced by the focus groups will be subjected to a deeper technical and benefit/cost analysis performed with the assistance of an outside contractor. This analysis will focus on engineering feasibility and cost, effect on congestion, economic impact including productivity, and impact on equity, including spatial equity and equity as it pertains to low-income or other transportation–disadvantaged groups.

Task 6: Summarize findings and present to TPB

Based on the survey and focus group findings, and additional analytic work, the expert panel will summarize public feedback on pricing options and scenarios. The results will be presented to the TPB.

Project Goals:
Provide Information for Decision Makers, Contribute to Long-Term Policy Objectives

As an immediate goal, this project aims to identify the challenges and opportunities that decision makers would face if they were to move forward with the implementation of distance-based road pricing or other forms of value pricing. This is a practical and useful goal, which we believe will make an important contribution to our region's transportation planning activities, as well as playing a key role in the emerging national conversation about transportation funding and planning policy.

Underlying this study, however, is a set of broader goals articulated in the TPB Vision, the Washington region's transportation policy framework. Adopted in 1998, the Vision calls for reductions in VMT per capita and lane miles of congestion. The Vision also urged regional leaders to provide a range of transportation choices, plan land use more efficiently, promote environmental sustainability, and use technology to obtain more efficient use of our existing transportation capacity.

Our region has made progress on many of the goals embodied in the Vision, although successes have been incremental and sometimes uneven. But one Vision goal has remained more elusive than others – sustainable funding. Transportation revenues remain tight, and transportation capacity in our growing region is not keeping up with demand. Many regional leaders agree that until this funding shortfall is addressed, progress on the Vision's other goals will remain limited.

Although regional leaders have increasingly accepted tolling for new road capacity, consensus on more ambitious pricing concepts is still quite distant. However, as displayed in this grant proposal, regional leaders on the TPB have agreed that at the very least they need to investigate innovative approaches that could reduce congestion, raise revenue, make investments in a variety of modes, enhance economic competitiveness, create livable communities and use technology to obtain more efficient use of our existing transportation capacity. Road pricing presents opportunities that could help to achieve these ambitious long-term goals, but our region cannot seize such opportunities if we do not more fully understand public perceptions of pricing policies.

Key Elements for Inclusion in the Study

In preparation for the development of this proposal, the TPB members and staff have engaged in extensive discussions with elected officials, planning staff at partner agencies, citizens and other key stakeholders. Based upon this input, as well as the TPB's past activities related to value pricing, the project scope will be constructed to include the following key aspects:

- *Facilities to be included.* As described above, the project will study several scenarios for broad-scale area-wide or region-wide pricing that will be examined in surveys and focus groups. Because at least one of the scenarios will be based upon vehicle-based pricing technologies, travel on all regional facilities will be covered in at least one of the scenarios. Other scenarios may include looking at zones within the region or subsets of the region's road network.

- *Pricing variability.* To provide useful comparisons, scenarios will look at variable pricing as well as flat pricing systems. Public perceptions of the differences between these approaches will be extensively probed through the study's survey and focus group analysis. The public will be asked opinions about details such as pricing levels and formulas, technologies, enforcement and operating details.

- *Anticipated benefits of pricing.* Research on public opinion will include discussion and analysis of the following questions, among others, related to the potential benefits of pricing:
    - How should additional revenue be used? The public will be asked about a variety of options for the use of revenues, such as dedication to alternative modes, investment in roads, gas tax relief and funding for local jurisdictions.
    - From the public's perspective, how valuable is the potential reduction in congestion resulting from road pricing?
    - Would the public welcome benefits for other modes, including more capacity and funding for public transit, as well as increased opportunities for bicycling and walking?

- *Concerns about privacy.* This research project will investigate public concerns about privacy issues related to vehicle-based pricing. Topics may include public attitudes regarding the comparative intrusiveness of various technologies, opportunities to mitigate concerns about privacy, and public attitudes toward the relative benefits of new technologies (such as transponders that also provide real-time traffic information) that might outweigh privacy concerns.

- *Distributional implications of pricing.* The project will probe public attitudes related to equity and fairness, such as:
    - When comparing several pricing scenarios, do citizens perceive some options to be more or less fair?
    - What would it take to adequately mitigate negative impacts on low-income, minority, or other communities?
    - How can a pricing scenario be equitably structure to take into account transportation-disadvantaged groups?

- *Role of alternate modes.* The study will examine whether the public believes that other modes, like transit, can serve as adequate alternatives to travel in a priced area. Answers to this and other questions will be disaggregated according to jurisdiction.

Public perceptions regarding the role of alternate modes will also be correlated with land use patterns.

- *Importance of thorough and objective analysis.* It is important that the study's findings are defensible and robust. The project will be largely guided by an expert panel reflecting a spectrum of professional and academic backgrounds. Members of the panel may include transportation economists, land use experts and representatives of key stakeholder interests. Transportation agency representatives will participate in an ex-officio capacity. In addition, care will be taken to ensure the public opinion research is based on samples that are large enough to stand up to scrutiny and available for disaggregation along individual jurisdictional lines.

Responsiveness to the Federal Solicitation

This proposal responds specifically to the Federal Register solicitation of August 5, 2009 for proposals for the FHWA Value Pricing Pilot Program in the following ways:

- *Project type.* This application seeks funding for a "pre-implementation study," which, as defined in the solicitation, will "support efforts to identify and evaluate congestion pricing project alternatives, and to prepare the necessary groundwork for relatively near-term implementation" (page 39141, column 1). The guiding premise of our study is that a significant challenge to implementing value pricing programs is the question of public acceptance. Therefore we can best lay the groundwork for potential new pricing programs by conducting an objective and comprehensive investigation of public opinion, and providing this information to decision makers.

- *Regionwide scenarios.* The solicitation indicates that FHWA will consider project proposals to "Perform a rigorous areawide or regionwide congestion pricing scenario study around one or more scenarios that are comprehensive and potentially acceptable to the public" (page 39140, column 1). Our project will craft several scenarios that will be presented to the public for discussion. At least one, if not all, of the scenarios will cover the entire region, and all the scenarios will be analyzed from a regional perspective. At least one of the scenarios will be based upon regionwide vehicle-based pricing technologies.

- *Political support.* The solicitation states that "For pre-implementation projects, applicants should demonstrate that there is already sufficient political support for their implementation, or that the project is designed to bring about such support." The TPB, which includes elected officials from throughout the Washington region, has already demonstrated its support for this project when it voted to approve the submission of this application on October 21, 2009. More broadly, the entire proposal is centered on questions related to political support. We believe this project will meet the fundamental challenge of the FHWA solicitation by launching an intensive investigation

that asks objective questions about how and whether a "high probability" of public support can be achieved.

- *Pragmatic and focused study.* The solicitation states that "FHWA will not fund purely academic studies of congestion pricing or studies that involve major expansions of existing facilities or area-wide or regionwide planning studies covering many topics besides pricing and incorporating congestion pricing only as one of a number of options"(page 39141, column 1). This project would conduct a focused and objective investigation of the issue of public acceptability of pricing. This is an issue that our agency is not likely to otherwise study through our ongoing work program activities. The project will be designed to be highly informative and useful for decision makers.

- *Potential impacts on low-income drivers and other transportation disadvantaged groups.* The solicitation states that "Projects should be designed to reflect the needs of low-income or other transportation-disadvantaged groups" (page 39141, column 1). The concerns of these drivers would be essential to our study. As noted in the Brookings recent report in support of road-use charging, "Higher-income drivers are most able to afford the peak charges, and the time saved is more valuable to those drivers with higher incomes (because their hourly wage is higher). Lower income drivers are more likely to have to change their behavior so that they drive when charges are less, or switch to other modes of travel. Low-income motorist are also more likely to own less-fuel efficient vehicles, so any congestion pricing policy that takes vehicle type into consideration will fall upon them disproportionately" (Brookings paper, page 3) Our project will explicitly set out to research how individuals from such groups believe they might be negatively affected by pricing programs, and whether mitigation measures, such an increased transit options, reduced toll rates or monetary credits, will be an adequate and acceptable mitigation of negative consequences.

- *Consideration of innovative techniques.* The solicitation states that "As part of broad, areawide or regionwide pricing scenario studies, the inclusion of new, innovative congestion pricing approaches is encouraged" (page 39140, column 3). Our proposed study will respond to this challenge. Through a survey and focus groups, the project will break new ground by explaining and discussing innovative techniques – some of which have not yet been extensively applied anywhere in the world, including GPS-based pricing schemes. These concepts are new to most people and therefore the study will need to provide basic education on different technologies and their purposes.

- *Discussion of sustainability and livability.* The solicitation states that "FHWA in particular seeks tests of non-toll pricing strategies that will substantially improve livability in an area and advance environmental sustainability in a major way…" (page 39140, column 2). The proposed survey and focus groups would encourage citizens to understand how pricing policies might convey environmental benefits and explore how citizens value such benefits.

- *Comparisons with the regional long-range plan.* Areawide or regionwide transportation pricing studies are encouraged to include evaluation of benefits, costs, revenues, environmental impacts, distributional impacts, and financial feasibility of each alternative package of transportation improvements, in comparison with the region's currently adopted long-range transportation plan "(page 39140, column 3). An analysis of the TPB's Constrained Long-Range Plan will provide a baseline of current and future conditions that will be essential to a public dialogue about the relative impacts of road pricing. This baseline will provide a view of the future given current trends that will be a starting point for discussion about the possibility of alternative pricing scenarios.

- *Inclusion of stakeholder groups.* The solicitation states that "Development of alternative packages may involve stakeholder groups, including (among others) business groups, environmental groups, and advocates for social equity" (page 39140, column 3). While this project will rely upon the use of an expert panel to guide its development, the gathering of public opinion will include outreach to stakeholder groups, including the categories identified above. These groups are regular participants in the TPB's planning process and their inclusion will be essential to the work of this study. Input from elected officials, including those on the TPB, will also be sought.

- *Encouraging the use of alternate modes.* The solicitation emphasizes the importance of promoting alternative modes. The TPB currently has a variety of programs and policies promoting alternatives to driving. This proposed study will identify the public's views on whether these alternatives are adequate. It will also explore if and how these alternatives may need to be enhanced in any given pricing scenarios.

- *Next steps and implementation.* The solicitation stresses the federal interest in near-term implementation. The proposed study will be constructed to provide useful data for immediate use by policy makers while also establishing a reservoir of information to potentially inform longer-term change. We anticipate that the results of this study will lead to a more comprehensive understanding of public opinion on various forms of road pricing. This, in turn, will better inform regional decision makers on how to solve some of the transportation challenges facing the metropolitan Washington region.

- *Comprehensiveness.* The solicitation notes that proposals will be evaluated based upon "The degree to which the proposed pricing scenarios are comprehensive involving synergistic combinations of multimodal investment strategies, Intelligent Transportation System technologies and travel demand management strategies" (page 39143, column 1). The expert panel that constructs the scenarios for this project will comprehensively consider a range of elements designed to improve system efficiency, including those noted above.

Funding

Given the 80:20 match requirement, this application's funding request from FHWA is $320,000. Total funding for the project will be $400,000. The Metropolitan Washington Council of Governments Board of Directors on October 14 approved the required 20% match in the amount of $80,000.

The FHWA Value Pricing Program is the only external funding source being solicited for this pre-implementation study.

Schedule and Budget

The project is anticipated to last a period of 12 months. The six tasks of the project will be scheduled and budgeted as follows:

Task 1: Develop a menu of implementation options, months 1-3	50,000
Task 2: Conduct public opinion survey, months 4-5	100,000
Task 3: Identify scenarios based upon survey, months 6-7	75,000
Task 4: Test scenarios in focus groups, months 8-9	50,000
Task 5: Conduct further analysis, months 10-11	75,000
Task 6: Summarize findings and present to TPB, month 12	50,000
Total	$400,000

Funds will be divided as follows:

COG/TPB	180,000
Subcontractors:	
Brookings Greater Washington	60,000
Public opinion research consultant	150,000
Additional technical consultant support	10,000
Total	$400,000

Point of Contact

John Swanson
Senior Transportation Planner
jswanson@mwcog.org
202-962-3295

Implementation Responsibilities

The Transportation Planning Board at COG will act as lead agency responsible for grant implementation. TPB staff will be responsible for project management and oversight, technical analysis, and outreach with stakeholders in the region. The Virginia Department of Transportation (VDOT) will be the direct recipient of the grant. Greater Washington Research at Brookings will provide support in convening experts, conducting project research, and providing project guidance. The TPB staff and Brookings will jointly develop the final research report, including the articulation of findings. Consultant support will be procured to develop, conduct and analyze a public opinion survey and a series of focus groups, as well as for additional technical analysis.

IV. ADDITIONAL INFORMATION

Overview of Previous Work on Value Pricing

- ***COG/TPB Activities on Value Pricing, 2001-2009***

The TPB initiated the Regional Mobility and Accessibility Scenario Study ("the scenario study") in 2001 to evaluate additional highway and transit options beyond those that are currently funded, and to examine the interaction of these transportation options with various land use alternatives. The first phase of the scenario study, summarized in a final report dated November 17, 2006, included the development and analysis of five alternative land use and transportation scenarios.

In 2003, the TPB convened more than 200 elected officials, community leaders, planners and academics for a conference that was the region's first major public event to discuss value pricing. The conference helped to galvanize regional interest in pricing as a solution to the region's perpetual transportation funding shortfall. Later in 2003, the TPB formed its Task Force for Value Pricing in Transportation, which developed a set of regional goals for variably priced projects in the region. This task force also provided oversight for the second phase of the TPB Scenario Study, which was an in-depth analysis of a regional network of variably priced lanes funded under a grant from the FHWA's Value Pricing Pilot Program. This study evaluated the demand, potential revenue, transit viability and land use impacts of a regional network of variably priced lanes, and documented its findings in a February 2008 report, which garnered wide interest throughout the region. The final report, which includes the TPB's Policy Principles on Variably Priced Lanes, can be found at: http://www.mwcog.org/TPB/VPTF/docs/RVPS_Final_Report.pdf.

The current phase of the scenario study, initiated in January 2008, is evaluating two new, second-generation scenarios. The "What Would It Take?" scenario is an analysis of the interventions that should be taken in order to meet regional climate change goals, while the

"CLRP Aspirations" scenario combines the previous two phases of the scenario study, pairing land use shifts with pricing and transit projects.

- ***Brookings Paper Proposing a Road-use Pricing Strategy, June 2009***

In June 2009, the Brookings Institution linked the concept of distance-based pricing to the Washington region with a bold proposal for an area-wide demonstration project that would replace state gas taxes in our region with a system of road pricing. The proposal, titled *"Road-use Pricing: How Would You Like to Spend Less Time in Traffic?"* called for a GPS-based pricing system to replace the gas tax and raise new revenues from vehicle travel while simultaneously providing a means to reduce traffic congestion and pollution and improve public transportation.

The final report and associated op-ed can be found at:
http://www.brookings.edu/papers/2009/0625_transportation_rivlin_orr.aspx
http://www.brookings.edu/opinions/2009/0501_congestion_pricing_rivlin.aspx

Project Staff

The following staff members are expected to be involved in this project:

- ***Ronald F. Kirby,*** who will provide project oversight, is director of transportation planning for the National Capital Region Transportation Planning Board (TPB) at the Metropolitan Washington Council of Governments (COG) where he is responsible for long-range planning for highway and public transportation systems in the Washington metropolitan region, assessment of the air quality implications of transportation plans, and a variety of programs designed to promote multi-modal planning and transportation/land-use coordination. Previously, he directed the transportation program at the Urban Institute, a non-profit policy research organization in Washington, D.C. Dr. Kirby is a national leader on metropolitan transportation planning issues and in the past decade has worked extensively to promote consideration of value pricing in the Washington region.

- ***Alice M. Rivlin***, a Brookings Senior Fellow and the head of Greater Washington Research at Brookings, will provide strategic guidance for the study. Dr. Rivlin previously directed the financial control board that oversaw the District of Columbia's emergence from bankruptcy. She also was Vice Chair of the Federal Reserve Board, director of the U.S. Office of Management and Budget during the Clinton Administration, and founding director of the Congressional Budget Office. Along with Benjamin Orr, she is the co-author of the Brookings Report "*Road-use Pricing: How Would You Like to Spend Less Time in Traffic?"*

- ***John Swanson*** will serve as project manager for the study. Mr. Swanson is a Senior Transportation Planner at COG responsible for public involvement activities and programs designed to promote better coordination between land use and transportation. In 2008 and 2009, Mr. Swanson conducted research on congestion charging experiences in London, Stockholm, and Manchester, England under a German Marshall Fund fellowship. His report, "Gaining Public Support for Congestion Charging: Notes from Europe on the Implementation of Bold Transportation Policies," can be found at: www.gmfus.org/galleries/cdp-tcn/Swanson_Final_Report_September_2009.pdf

- Benjamin Orr, Research Analyst at Brookings, will coordinate research activities on behalf of Greater Washington Research at Brookings. Mr. Orr is the co-author of the Brookings paper *"Road-use Pricing: How Would You Like to Spend Less Time in Traffic?"* which will provide the starting point for research under this proposed study. ***Martha Ross***, Deputy Director of Greater Washington Research at Brookings, will also provide assistance with the project. Ms. Ross works on a variety of issues, primarily those affecting low-income residents and families in Washington, D.C. and the metropolitan area.

- Additional COG/TPB staff working on this project will likely include ***Gerald Miller,*** Program Coordination Director, who oversees financial analysis activities for the region's transportation plans; ***Robert Griffiths*** ,Technical Services Directors, who manages the TPB's Household Travel Survey and led analysis activities for the TPB's Scenario Study; ***Michael Eichler***, Transportation Planner III, who conducted research under the TPB's value pricing grant completed in2008, and ***Darren Smith*** and ***Deborah Kerson Bilek***, both Transportation Planners III, who work on public outreach activities and transportation/land-use coordination activities.